

### **REMARKS**

Claims 43-99 were pending in the current application. Applicants have amended claims 43, 55, 57, 65, 78, 90, and 92. Reexamination and reconsideration of all pending claims are respectfully requested.

#### ***35 U.S.C. § 103***

The Office Action rejected claims 43-51, 53-74, 76-86, and 88-99 under 35 U.S.C. §103 based on U.S. Patent Application 2001/0040722 to Shafer et al. ("Shafer 722") in view of U.S. Patent 4,108,794 to Yonekubo ("Yonekubo") and in further view of Shafer et al., U.S. Patent 6,842,298 ("Shafer 298"). Dependent claims 52, 75, and 87 were rejected under 35 U.S.C. §103 based on Shafer 722 in view of Yonekubo in further view of Shafer 298 and in still further in view of Deutsch et al., WO 01/57563 A2.

In general, Applicants have amended the independent claims to recite that the Mangin mirror group is "positioned between the field lens group and the specimen" (claim 43, with similar amendments to all other independent claims).

The Shafer 722 reference and Shafer 298 references do not show this.

Shafer 722 is a broad band DUV/VUV catadioptric imaging system using an off-axis implementation. Shafer 722, paragraph [0039]. Each Safer implementation, including the FIG. 7 implementation, shows an off-axis design and components of the objectives disclosed are not aligned along a single axis, and not aligned along a single light energy axis. Indeed, in FIG. 7, lenses provided receive light energy along a vertical axis in the implementation shown, and light energy is provided in a horizontal orientation in other parts of the FIG. 7 objective.

Shafer 298 shows an implementation wherein, for example, lenses in field lens group 507 and focussing lens group 508 are positioned between the two mangin mirrors 504 and 506 and the specimen, where the specimen is not specifically shown in FIG. 5

but is positioned on the right side of the drawing of FIG. 5 and every applicable embodiment of Shafer 298.

Applicants submit that neither Shafer 722 nor Shafer 298 show a design wherein a Mangin mirror group is positioned between a field lens group and the specimen. For this reason alone, namely the absence of limitations from the cited references alone or in combination, the independent claims 43, 55, 57, 65, 78, 90, and 92, as amended, are not obvious based on Shafer 722 in view of Shafer 298, with Yonekubo not pertinent to this limitation.

Additionally, Shafer 722 and Shafer 298 are designs that materially differ from each other and from the present design. Shafer 722 is an off-axis arrangement while Shafer 298 employs the dual Mangin mirror design previously discussed, and neither reference provides lenses and optical element groups as shown in the arrangement disclosed and claimed herein.

Applicants dispute the alleged combination of Shafer 722 with Shafer 298. It is as if the Office Action alleges that somehow the off-axis design of Shafer 722 could be used with the dual mangin mirror design of Shafer 298 and the immersion liquid of Yonekubo. Such a design, if it could work at all, would likely not result in a useful objective, and would fail to provide good imaging or a satisfactory image of the specimen.

Further, there is no reasoning having factual underpinnings supporting the combination of references in the manner suggested in the Office Action. It is only through the use of hindsight that such a combination could be thought feasible, and such a combination would require undue experimentation to fully and properly achieve. It is difficult to see how the designs could be combined, as the Office Action attempts, to produce a workable design having the beneficial properties claimed in the present claims.

Claims 43, 55, 57, 65, 78, 90, and 92, as amended, are therefore not obvious in view of Shafer 722 and Shafer 298. Claims depending from allowable claims 43, 55, 57,

65, 78, 90, and 92 are also allowable as they include limitations not found in the cited references. Accordingly, it is respectfully submitted that all pending claims, as amended, fully comply with 35 U.S.C. §103.

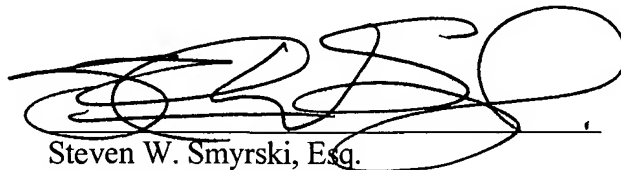
**CONCLUSION**

In view of the foregoing, it is respectfully submitted that all claims of the present application are in condition for allowance. Reexamination and reconsideration of all of the claims, as amended, are respectfully requested and allowance of all the claims at an early date is solicited.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Applicants believe that no fees are due in accordance with this Response beyond those included herewith. Should any fees be due, the Commissioner is hereby authorized to charge any deficiencies or credit any overpayment to Deposit Account 502026.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Smyrski', written over a horizontal line.

Steven W. Smyrski, Esq.  
Registration No. 38,312

Date: July 19, 2010

SMYRSKI LAW GROUP, A PROFESSIONAL CORPORATION  
3310 Airport Avenue, SW  
Santa Monica, California 90405-6118  
Phone: 310.397.9118  
Fax: 310.397.9158